

**CLAIMS**

1. A compound of structural formula (I), as an activators of Histone acetyltransferases, *containing ring A derived from substituted benzoic acid moiety and ring B is substituted anilide* wherein:

5 **R1** is H, Methyl, Ethyl, n-Propyl, Isopropyl, n-butyl, t-butyl, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

**R2** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl;

**R3** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl, CF<sub>3</sub>, CCl<sub>3</sub>, Cl<sub>3</sub>, F, Cl, I, NO<sub>2</sub>, CN;

10 **R4** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl, CF<sub>3</sub>, CCl<sub>3</sub>, Cl<sub>3</sub>, F, Cl, I, NO<sub>2</sub>, CN;

**R5** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl, CF<sub>3</sub>, CCl<sub>3</sub>, Cl<sub>3</sub>, F, Cl, I, NO<sub>2</sub>, ;

**R6** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl, CF<sub>3</sub>, CCl<sub>3</sub>, Cl<sub>3</sub>, F, Cl, I, NO<sub>2</sub>, CN; and

15 **R7** is H, methyl, ethyl, n-propyl, isopropyl, n-butyl and t-butyl, CF<sub>3</sub>, CCl<sub>3</sub>, Cl<sub>3</sub>, F, Cl, I, NO<sub>2</sub>, CN.

2. A compound of structural formula (II) *for ring A of formula (I)* the accompanying drawings for inhibitor of Histone acetyltransferases, wherein:

20 **R1** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

**R2** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

**R3** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

25 **R4** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

**R5** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>;

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**R6** is H, CH<sub>3</sub>, Hydroxyl, Carboxylic, O-Methoxy, O-Ethoxy, n-Propoxy, O-Isopropoxy, n-butoxy, t-butoxy, C<sub>8</sub>H<sub>18</sub>, C<sub>15</sub>H<sub>26</sub>, C<sub>15</sub>H<sub>28</sub>, C<sub>15</sub>H<sub>30</sub>, C<sub>15</sub>H<sub>32</sub>.

3. A process of preparing compounds as described in formula I or formula II by known methods.

- 5 4. A method of treating a patient suffering from diseases due defects in gene regulation predominantly or at risk of, cancer, which comprises administering to the patient a therapeutically effective amount of a compound of formula (I) to activate histone acetyltransferases or formula (II) to inhibit histone acetyltransferase or a pharmaceutically acceptable salt or solvate of these compounds.

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